



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
1650 Arch Street
Philadelphia, Pennsylvania 19103**

August 6, 2001

SUBJECT: Technical Support Document for Approving the revised Motor Vehicle Emissions Budgets in Pennsylvania's Revised Attainment Plan for the Southeast Pennsylvania Portion of the Philadelphia-Wilmington-Trenton Ozone Nonattainment Area [PA117-4131]

FROM: Christopher Cripps 
Environmental Engineer

TO: File

THRU: David L. Arnold, Chief 
Air Quality Planning and Information Services Branch
(3AP21)

I. Background

On December 16, 1999, EPA published a notice of proposed rulemaking on the attainment plan submitted on April 30, 1998 and supplemented on August 21, 1998 by the Commonwealth of Pennsylvania ("the Commonwealth" or "Pennsylvania") for the Philadelphia-Wilmington-Trenton Ozone Nonattainment Area. That proposed rulemaking is entitled, "Approval and Promulgation of Air Quality Implementation Plans; Pennsylvania; One- Hour Ozone Attainment Demonstration for Philadelphia-Wilmington-Trenton Ozone Nonattainment Area" (64 FR 70428, December 16, 1999).

The attainment year is for the Philadelphia-Wilmington-Trenton area is 2005.

On February 25, 2000, the Commonwealth of Pennsylvania (the Commonwealth) formally submitted revisions its State Implementation Plan (SIP). The Commonwealth submitted revisions to its attainment demonstration plan SIP for the Philadelphia-Wilmington-Trenton Ozone Nonattainment Area ("the Philadelphia area"). The Southeast Pennsylvania portion of the Philadelphia area consists of Philadelphia, Delaware, Chester, Montgomery and Bucks Counties (hereafter "SE Pennsylvania"). This February 25, 2000 submittal included motor vehicle emissions budgets for the attainment year of 2005 as well as reaffirmation of enforceable commitments as required by the December 16, 1999 proposed action. On May 31, 2000, we determined that the budgets in the February 25, 2000 SIP revision were adequate. See 65 FR 36438, June 8, 2000.

In the December 16, 1999 notice of proposed rulemaking, we required that the benefits from the

Federal Tier 2/Sulfur rule be incorporated into the attainment motor vehicle emissions budgets if the Commonwealth elected to rely upon this Federal rule in its demonstration of attainment. See 64 FR 70428, December 16, 1999.

On July 19, 2001, the Commonwealth submitted a SIP revision with revised attainment motor vehicle emissions budgets for the SE Pennsylvania portion of the Philadelphia area. These motor vehicle emissions budgets are for the year 2005 and incorporate the benefits of the Federal Tier 2/Sulfur-in-Fuel rule. The Commonwealth submitted these motor vehicle emissions budgets in response to our proposed action on the Commonwealth's attainment demonstration SIP for the Philadelphia area.

The motor vehicle emissions budgets in the February 25, 2000 and the July 19, 2001 submittals are compared in the following table.

Clean Air Act Requirement & Year	Submittal Date	Mobile Vehicle Emissions Budget for NOx- Tons Per Day	Mobile Vehicle Emissions Budget for VOC- Tons Per Day
2005 Attainment	February 25, 2001	86.42	61.76
2005 Attainment	July 19, 2001	77.46	60.18

NOx: nitrogen oxides

VOC: volatile organic compounds

II. Evaluation of the Budgets - Criteria for Adequacy of and Approval of Motor Vehicle Emissions Budgets

The criteria for judging the adequacy of motor vehicle emission budgets are detailed in the transportation conformity regulations in 40 CFR 93.118.¹ Our process for determining the adequacy of SIP motor vehicle emission budgets as delineated in the EPA's May 14, 1999 memorandum titled "Conformity Guidance on Implementation of March 2, 1999 Conformity Court Decision."

The adequacy criteria are a subset of the criteria that we would apply when determining if the motor vehicle emissions budgets are approvable. These criteria have been established by rule (40 CFR part 93) and did not impose any new requirements for submitted SIP revisions (62 FR 43779 at 43781, August 15, 1997). The following paragraphs discuss how the Commonwealth's

¹ Promulgated at 58 FR 62188, November 24, 1993, and amended by 60 FR 40098, August 7, 1995 and by 62 FR 43779, August 15, 1997

July 19, 2001 submittal met each adequacy criterion.

The submitted budgets must be endorsed by the Governor (or his or her designee) and subject to a State public hearing [40 CFR 93.118(e)(4)(i)]. All SIP revisions must be submitted by the Governor or the designee thereof, and be subject to a public hearing at the State level. The July 19, 2001 SIP revision was submitted by the Secretary of the Pennsylvania Department of Environmental Protection (who is the Governor's designee). A notice establishing a comment period and announcing a public hearing was submitted. A public hearing was held on June 28, 2001.

Before the budgets are submitted to EPA, consultation among federal, State and local agencies must occur; full implementation plan documentation must be provided to EPA, and EPA's stated concerns, if any, must be addressed [40 CFR 93.118(e)(4)(ii)]. Transportation conformity uniquely affects recipients of Federal highway funds (as well as the Federal Department of Transportation). Procedures for and the requirement for consultation among federal, State and local agencies is a major part of the administrative requirements of the transportation conformity rule. Full documentation was provided to EPA and consultation has occurred between all required federal, state and local agencies.

The budgets must be clearly identified and precisely quantified [40 CFR 93.118(e)(4)(iii)]? To be enforceable as part of the SIP the budgets must specify exactly what limitations the SIP places on the transportation sector and specify that such limits have been unequivocally established. The content of the July 19, 2001 SIP revision is clear that the 2005 attainment motor vehicle emissions budgets for the SE Pennsylvania portion of the Philadelphia area are 60.18 tons per day VOC and 77.46 tons per day NOx.

The budgets, when considered together with all other emission reductions, must be consistent with applicable requirements for attainment demonstrations [40 CFR 93.118(e)(4)(iv)] To be approvable for attainment the motor vehicle emissions budgets must provide for attainment when considered in light of all the other emission reductions and measures in the attainment plan. The Commonwealth submitted these revised motor vehicle emissions budgets to include the benefits of the Federal Tier 2/Sulfur rule to fulfill a prerequisite for approval that we established in our December 16, 1999 proposed approval. Under the guidance set forth in a November 3, 1999 EPA Memorandum from Merrylin Zaw-Mon entitled: "Guidance on Motor Vehicle Emissions Budgets in One-Hour Ozone Attainment Areas," the budgets can be declared adequate based upon the commitments to additional measures made by Pennsylvania in a SIP submittal dated February 25, 2000 in which the Commonwealth reaffirmed its commitments in a February 25, 2000 letter to EPA.

The budgets must be consistent with and clearly related to the emissions inventory and the control measures in the submitted attainment demonstration [40 CFR 93.118(e)(4)(v)]. The measures needed for attainment must be reflected in the motor vehicle emissions budgets. A SIP may only specify a desired level of future highway and transit emissions only if it specifies the

control measures which are expected to result in that emission level. The budgets do include EPA's Tier2/Sulfur-in-fuel rule that will be in effect in 2005 and all other controls in effect in 2005.

Revisions to previously submitted attainment demonstrations must explain and document any changes to previously submitted budgets and control measures; impacts on point and area source emissions; any changes to established safety margins (see 40 CFR 93.101 for definition); and reasons for the changes (including the basis for any changes related to emission factors or estimates of vehicle miles traveled) [40 CFR 93.118(e)(4)(vi)]. The plan explains that the budget changes are solely due to application of additional mobile source controls, namely, the Federal Tier 2/Sulfur rule, beyond those in the motor vehicle emissions budgets submitted on February 25, 2000.

The state must provide opportunity for public comment and did we review the State's responses to those comments with the submitted SIP [40 CFR 93.118(e)(5)]. This criterion flows from the equivalent completeness criterion from 40 CFR part 51, appendix V. Opportunity for public comment was provided and there were public comments. We reviewed the comments and the State's responses and determined that the State adequately responded to those comments.

III. Reasons to Forgo a Separate Finding of Adequacy

The submission of these motor vehicle emissions budgets will be posted on EPA's conformity Web site noting that EPA is taking comment on the approvability (and thus the adequacy) of these budgets by a notice of proposed rulemaking. We are forgoing the standard adequacy process² because by October 15, 2001, we are currently required under a consent decree to sign either: (1) a final rule fully approving the attainment demonstration for the Philadelphia area, or (2) an action proposing a Federal implementation plan to remedy any gaps in the attainment demonstration.

The adequacy process is nominally a ninety-day process, and, if the budgets are found to be adequate allows the use of the motor vehicle emissions budgets in a SIP to be used prior to a final approval of the underlying SIP. If we sign a final action approving the attainment demonstration for the Philadelphia area by the date specified in the consent decree, such an action will have the effect of approving these motor vehicle emissions budgets into the SIP along with the attainment demonstration negating the need for a separate finding of adequacy.

IV. Trigger to Redetermine Conformity within 18-Month under Section 93.104 of the Conformity Rule

The conformity rule establishes the frequency by which transportation plans and transportation

² See the May 14, 1999, Memorandum from Gay MacGregor entitled, "Conformity Guidance on the Implementation of the March 2, 1999 Conformity Court Decision."

improvement programs must be found to conform to the SIP. Among other “triggers”, a conformity determination is required within 18 months of both the initial submission and final EPA approval of a control strategy SIP or maintenance plan (40 CFR 93.104(e)(2) and (3)). Both submission and approval can trigger a redetermination of conformity, because it is not uncommon for the SIP to change between initial submission and final approval. If conformity was determined to the initial SIP submission and the SIP did not change between initial submission and final approval, the requirement to determine conformity after final approval could be satisfied without new regional emissions analysis. (See 61 FR 36112, July 9, 1996 [section XI.A. 2.- Triggers for Redetermination]). The motor vehicle emissions budgets for the SE Pennsylvania portion of the Philadelphia area would be a case where the budgets have changed between the initial submittal on February 24, 2000 and any final approval of the July 19, 2001 budgets.³ Therefore, approval of the budgets in the July 19, 2001 SIP revision will institute this requirement to redetermine conformity of existing transportation plans and TIPs within 18 months of the effective date of an approval of these budgets.

V. Recommendations

The motor vehicle emissions budgets (and revised enforceable commitment to a mid-course review) in the July 19, 2001 SIP revision are an inseparable part of the attainment demonstration and cannot be approved separately from the attainment demonstration. However, these motor vehicle emissions budgets (and the commitment) were identified as a prerequisite for approval of the attainment demonstration in the December 16, 1999 proposed approval of the attainment demonstration. My review indicates that the budgets meet the adequacy criteria, but can only be approved concurrently with the attainment demonstration. Therefore, I recommend we propose approval of the revised motor vehicle emissions budgets and commitment to a mid-course review under the framework established by our December 16, 1999 proposed approval.

³ Obviously no transportation plan and/or TIP has ever been shown to conform to the motor vehicle emissions budgets in the July 19, 2001 SIP because these budgets cannot be used until EPA either approves these budgets or affirmatively finds that these budgets are adequate.